



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,456	08/03/2007	Mario Wipprecht	SSM-564US	1556
23122	7590	03/14/2011		
RATNERPRESTIA P.O. BOX 980 VALLEY FORGE, PA 19482			EXAMINER CIGNA, JACOB	
			ART UNIT	PAPER NUMBER
			3726	
			MAIL DATE	DELIVERY MODE
			03/14/2011 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,456

Applicant(s)

WIPPRECHT ET AL.

Examiner

JACOB J. CIGNA

Art Unit

3726

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-22, 24-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-912)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/27/11
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 6-7, 9-11, 14-15, 17, 19, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. (US Patent 3,699,621 hereinafter referred to as CLARKE) in view of Sulzer-Escher Wyss (German Patent Publication DE-9301059-U hereinafter referred to as SULZER).
3. As to claim 1, CLARKE discloses **a web-processing roller** (CLARKE discloses a resilient roller capable of processing webs), **comprising a roller body having at least one hollow space defined therein** (roller 29 has space 9 between the sleeve 2 and the core member 1 (Figure 1)), **wherein the hollow space is at least partially filled with a mixture consisting of a liquid** ("The space 9 between the sleeve 2 and core member 1 is filled with a material that is liquid under the intended conditions of use of the roller" (Column 3 lines 1-3).) **and at least one insoluble co-ingredient in the liquid or by another liquid formed by solid particles wherein the solid particles are a granular solid** ("If desired, solid materials or other liquids may be mixed with the filled material provided they remain uniformly dispersed in the filling material in order to improve its thermal conductivity properties" (Column 6 lines 43-47). The teaching to "uniformly dispersed" inherently requires a solution of filler liquid having particulate

matter in uniform suspension. Since the particulate matter is taught to be "solid," this inherently causes the solid to be granular. Thus, it is inherent that the "solid materials" which "remain uniformly dispersed in the filling material" are solid granular particles. Applicant's definition of "pulpy" is a mixture of liquid and granular solid. Thus, CLARKE's teaching in Column 6 lines 43-46 is to a pulp.). CLARKE does not teach that **the mixture exhibits a pulpy consistency**. However, SULZER teaches a similar roller which has an outer sleeve and an inner core, the space between the outer sleeve and inner core is filled with at least dampening liquid. SULZER teaches that the degree of the attenuation depends in particular on the quantity of the moved liquid, the viscosity of the liquid as well as the flow resistance. Thus, SULZER teaches that it would have been a matter of routine experimentation with a known variable (viscosity) in order to produce a desirable outcome (appropriate damping). As CLARKE teaches the mixture of solids with liquids, it is further well known in the art that a mixture of solids and liquids in the correct ratio becomes pulpy. Applicant's definition as used throughout the disclosure is merely that the pulpy consistency arises from the mixture of a liquid and a granular solid. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided the mixture such that it exhibited a pulpy consistency because one would have recognized that the consistency of the mixture of liquid and particles as taught by CLARKE would have been directly related to the viscosity of the liquid, the more advantageous viscosity being a matter of routine experimentation.

4. As to claim 3, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the mixture is under a pressure burden** ("It is also preferable that the roller be pre-pressurized, i.e. filled with a filling material under pressure" (Column 5 lines 40-42).).

5. As to claim 4, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the mixture is under a partial vacuum**. SULZER teaches that to prevent steam bubbling in the liquid, the pressure in the annular space can be from 1-3 bar. Atmospheric pressure is generally agreed to be equal to 1 atmosphere (atm). The conversion from bar to atm is 1 bar : 0.9869 atm. Thus, at 1 bar as taught by SULZER, the pressure inside the annular space is under a partial vacuum as compared to the atmospheric pressure, since the pressure is less than 1 atm. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided the mixture under a partial vacuum as taught by SULZER in the roller as taught by CLARKE because one would have recognized that the pressures of the annular space would have provided excellent damping as well as web-pressing properties.

6. As to claim 6, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **at least one chamber which is variable in its volume is arranged in the hollow space** (the space 9 comprises a chamber which has a variable volume, as evidenced by the o-ring 4 and sleeve 7 shown in Figure 1. As the sleeve 7 and o-ring 4 combination is threaded further or closer to the o-ring 3, the volume of the chamber changes.).

7. As to claim 7, CLARKE in view of SULZER teaches the web-processing roller according to claim 6, wherein **the chamber comprises a flexible chamber wall** (a chamber wall is the o-ring 3,4 which are taught to be flexible.).
8. As to claim 9, CLARKE in view of SULZER teaches the web-processing roller according to claim 6, wherein **the chamber comprises a moving chamber wall** (as discussed in the rejection of claim 6, the o-ring 4 moves, which changes the volume of the chamber.).
9. As to claim 10, CLARKE in view of SULZER teaches the web-processing roller according to claim 9, wherein **the chamber wall is mounted, such that it can move, by another chamber wall** (Examiner interprets the term, "by" to mean that the chamber wall is mounted such that it can move *past* another chamber wall. Examiner recognizes that it would also be reasonable for a person having ordinary skill in the art to read the claim limitation to mean that the another chamber wall causes the chamber wall to move. Under Examiner's interpretation, the o-ring 4 (the chamber wall) moves past metal sleeve 2 (another chamber wall)).
10. As to claim 11, CLARKE in view of SULZER teaches the web-processing roller according to claim 6, wherein **the chamber is formed by elastic bellows**. This is a product by process claim. The roller disclosed by CLARKE overcomes this limitation because the roller 29 is capable of having a chamber formed by elastic bellows. For more information about Product by Process claims, please refer to MPEP §2113. Under a different interpretation of claim Examiner recognizes that the word, "formed," maybe

used as an adjective instead of the verb. Under this interpretation, CLARKE teaches o-rings 3 and 4 which comprise the chamber. O-rings 3 and 4 are elastic bellows.

11. As to claim 14, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the roller** (roller 29) **comprises a roller shell** (thin metal sleeve 2) **which forms a container wall for the mixture** (as shown in Figure 1, the sleeve 2 forms a wall for the hollow space 9 and the chamber.).

12. As to claim 15, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the roller** (roller 29) **includes a roller shell** (metal sleeve 2) **and a cylindrical body surrounded by the roller shell** (core member 1 is surrounded by the roller shell), **and wherein the mixture is arranged between the roller shell and the cylindrical body** (between the shell 2 and the core 1 is the hollow space 9 and the chamber, where the mixture is (Column 3 lines 1-3).).

13. As to claim 17, CLARKE in view of SULZER teaches the web-processing roller according to claim 15, wherein **the cylindrical body forms a container wall for the mixture** (the core 1 is shown in Figure 1 to provide a wall for the mixture).

14. As to claim 19, CLARKE in view of SULZER teaches the web-processing roller according to claim 15, wherein **the roller is a displacement-type roller and a displacement body forms the cylindrical body** (as shown in Figures 1 and 5).

15. As to claim 20, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **at least one container forming the hollow space is arranged in the roller** (the sleeve 2 is a container which helps to form the hollow space in the roller 29).

16. As to claim 25, CLARKE in view of SULZER teaches the web-processing roller according to claim 9, wherein **the chamber wall is guided, such that it can move, by another chamber wall** (Examiner interprets the term, "by" to mean that the chamber wall is mounted such that it can move *past* another chamber wall. Examiner recognizes that it would also be reasonable for a person having ordinary skill in the art to read the claim limitation to mean that the another chamber wall *causes* the chamber wall to move. Under Examiner's interpretation, the o-ring 4 (the chamber wall) moves past metal sleeve 2 (another chamber wall)).

17. Claims 5, 21-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. (US Patent 3,699,621 hereinafter referred to as CLARKE) in view of Sulzer-Escher Wyss (German Patent Publication DE-9301059-U hereinafter referred to as SULZER) as applied to claims 3, 1, 1, and 4 above respectively, and further in view of Lehtovirta et al (US Patent 5,919,297 hereinafter referred to as LEHTOVIRTA).

18. As to claim 5, CLARKE in view of SULZER teaches the web-processing roller according to claim 3, but does not teach **a fluid conduit leads into the hollow space and the mixture can be charged with the pressure burden via the fluid conduit**. However, LEHTOVIRTA teaches a roll having an annular chamber defined between an outer sleeve and an inner core (See Figure 1). The roll is used for paper making, and in use, is damped. LEHTOVIRTA teaches pressure inside of the roll due to the inflow and outflow of coolant. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided a fluid conduit (pipe

6) leading into the hollow space (inner core 7) and the mixture can be charged with the pressure burden via the fluid conduit as taught by LEHTOVIRTA because one would have recognized that the fluid conduit of LEHTOVIRTA would have provided an easy way to add or reduce the amount of mixture in the roll at any given time.

19. As to claim 21, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **at least one thermal treatment channel for conducting a heating or cooling fluid extends through the roller body of the roller** (the channel of CLARKE in the hollow space 9 is capable of conducting heating or cooling fluid, and extends through the roller body.). CLARKE does not teach the channel **ports at at least one axial end of the roller body**. However, LEHTOVIRTA teaches a roll having an annular chamber defined between an outer sleeve and an inner core (See Figure 1). The roll is used for paper making, and in use, is damped. Further, LEHTOVIRTA teaches that the chamber containing the liquid used to incur the damping is connected to a pipe 6 which is ported at one axial end of the roller body as shown in Figure 1. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided the channel ported at at least one axial end of the roller body as taught by LEHTOVIRTA because one would have recognized that the position of the ported pipe at the axial end of the body would have allowed the roller to rotate on its axis unimpeded.

20. As to claim 22, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, but does not teach **at least one thermal treatment channel for conducting a heating or cooling fluid extends through the roller body of the roller**

and ports at both axial ends of the roller body. However, LEHTOVIRTA teaches a roll having an annular chamber defined between an outer sleeve and an inner core (See Figure 1). The roll is used for paper making, and in use, is damped. Further, LEHTOVIRTA teaches that the chamber contains heating or cooling liquid such that the temperature of the liquid is used to incur the damping. The axial channel is connected to a pipe 6 which is ported at one axial end of the roller body as shown in Figure 1, and passages 8 which are at the other axial end of the roller. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided at least one thermal treatment channel for conducting a heating or cooling fluid extends through the roller body of the roller and ports at both axial ends of the roller body as taught by LEHTOVIRTA because one would have recognized that the thermally treating the mixture as taught by LEHTOVIRTA would have provided increased damping.

21. As to claim 24, CLARKE in view of SULZER teaches the web-processing roller according to claim 4, but does not teach **a fluid conduit leads into the hollow space and the mixture can be charged with the partial vacuum via the fluid conduit.**

LEHTOVIRTA teaches a roll having an annular chamber defined between an outer sleeve and an inner core (See Figure 1). The roll is used for paper making, and in use, is damped. LEHTOVIRTA further teaches a fluid conduit 6 leads into the hollow space. There is no teaching in SULZER as to how to achieve the partial vacuum of 1 bar. However, LEHTOVIRTA teaches a fluid pump system in Figure 3 capable of producing a partial vacuum within the roller due to the arrangement of the pump 13 and resistance

element 14. As the pump draws the mixture out of the roller, the mixture is stopped at the resistance element 14 creating higher pressure between the pump 13 and the resistance element 14 and lower pressures within the roller. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided a partial vacuum within the hollow space via the fluid conduit because one would have recognized that fluid conduits are well known system elements with which to provide vacuums in rollers.

22. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. (US Patent 3,699,621 hereinafter referred to as CLARKE) in view of Sulzer-Escher Wyss (German Patent Publication DE-9301059-U hereinafter referred to as SULZER) as applied to claim 6 above, and further in view of Ide (US Patent 5,007,304 hereinafter referred to as IDE).

23. As to claim 8, CLARKE in view of SULZER teaches the web-processing roller according to claim 6, but does not teach **the chamber is a bubble**. An inspection of Applicant's specification does not give any definition of the term "bubble" beyond the general terms "elastic" and 'not rigid' in reference to the chamber walls, as well as having a pressure differential between the inside and the outside of the chamber. Examiner acknowledges that the walls of CLARKE are on the whole rigid, but are elastic at the o-rings, and have a pressure differential between the inside and outside. Further, IDE teaches a fluid-filled elastomeric damping device in which there is a chamber 18 which is entirely surrounded by the elastomeric body 16. The chamber is filled with hydraulic fluid. Therefore, it would have been obvious to a person having ordinary skill

in the art at the time the invention was made to have surrounded the chamber of CLARKE with an elastomeric body 16 as taught by IDE in order to make the chamber a bubble because one would have recognized that the deformability of the chamber would have aided the damping.

24. Claims 12, 13, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. (US Patent 3,699,621 hereinafter referred to as CLARKE) in view of Sulzer-Escher Wyss (German Patent Publication DE-9301059-U hereinafter referred to as SULZER) as applied to claim 1 above, and further in view of Panossian (US Patent 5,365,842 hereinafter referred to as PANOSSIAN).

25. As to claim 12, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, but does not teach **a rotational axis of the roller extends through the mixture in the hollow space**. CLARKE teaches instead that the axis of the roller extends through the core member 1, which is not taught to have a hollow space. PANOSSIAN teaches a roller with non-obstructive particle damping having damping material 12 in cavities 26 arranged around the circumference of the roller as well as a cavity 26 arranged through the center axis of the roller. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided the rotational axis of the roller of CLARKE extending through the mixture in the hollow space as taught by PANOSSIAN because one would have recognized that having a cavity through the center of the core member would have increased the amount of mixture available to perform damping, and would have therefore have improved the damping of the roller.

26. As to claim 13, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the hollow space is rotationally symmetrical with respect to a rotational axis of the roller** (as taught by CLARKE Figure 1, the hollow space is arranged circumferentially of the core member 1 and is thus rotationally symmetrical with the rotational axis of the roller). CLARKE does not teach the hollow space **is one hollow space of a number of hollow spaces which together form a rotationally symmetrical arrangement of hollow spaces with respect to the rotational axis**. However, PANOSSIAN teaches a roller with non-obstructive particle damping having damping material 12 in cavities 26 arranged around the circumference of the roller. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided a number of hollow spaces which together form a rotationally symmetrical arrangement of hollow spaces with respect to the rotational axis as taught by PANOSSIAN because one would have recognized that the plurality of cavities would have provided superior strength to the cylinder while still providing adequate damping (PANOSSIAN Column 3 lines 4+).

27. As to claim 16, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the roller includes a roller shell** (sleeve 2) **and a cylindrical body surrounded by the roller shell** (core member 1 is surrounded by sleeve 2 as shown in Figure 1), but does not teach **the mixture is arranged within the cylindrical body**. With reference to the rejection of claim 12, PANOSSIAN teaches a cavity for holding the damping mixture through the rotational axis of the roller. Therefore, it would have been obvious to a person having ordinary skill in the art at the

time the invention was made to have provided the mixture arranged within the core member 1 of CLARKE by being at the center of the roller as taught by PANOSSIAN because one would have recognized that having a cavity through the center of the core member would have increased the amount of mixture available to perform damping, and would have therefore have improved the damping of the roller.

28. As to claim 18, CLARKE in view of SULZER teaches the web-processing roller according to claim 1, wherein **the roller comprises a roller shell** (sleeve 2) **and a cylindrical body surrounded by the roller shell** (core member 1 is surrounded by sleeve 2 as shown in Figure 1), but does not teach **the mixture is arranged between the roller shell and the cylindrical body**. With reference to the rejection of claims 12 and 16, PANOSSIAN teaches a cavity for holding the damping mixture through the rotational axis of the roller. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided the mixture arranged within the core member 1 of CLARKE by being at the center of the roller as taught by PANOSSIAN because one would have recognized that having a cavity through the center of the core member would have increased the amount of mixture available to perform damping, and would have therefore have improved the damping of the roller. CLARKE in view of PANOSSIAN teaches **another mixture consisting of a liquid and at least one insoluble co-ingredient in the liquid is arranged within the cylindrical body** (CLARKE teaches the mixture is comprised of "solid materials or other liquids" (Column 6 line 43). CLARKE teaches that this mixture is arranged in the hollow space in the roller to perform damping. As taught by CLARKE in view of PANOSSIAN, a

hollow space is found within the cylindrical body, thus the mixture would also have been arranged within the hollow space in the core member 1).

Response to Arguments

29. Applicant's arguments filed 27 January 2011 have been fully considered but they are not persuasive. The limitations of claims 2 and 23 have been added into the independent claim 1. Claim 1 has thus been rejected using the prior art documents CLARKE and SULZER. Each of Applicant's arguments is set forth below in italics, followed by Examiner's response.

30. *The Office Action fails to provide a reasonable basis why a person skilled in the art would combine the teaching of Sulzer with Clarke et al. Applicants respectfully submit that Clarke et al. teaches away from such a combination.*

31. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, as each reference teaches supposed improvements over the prior art, the motivation to combine is to create a further improved vibration damping roller, as taught by SULZER.

32. *Clarke et al. describes resilient rollers comprising an annular space (9) between a sleeve (2) and a core member (1) (see fig. 1) which is filled with a material that is liquid under the intended conditions of use of the roller (see column 3, lines 1to3). The thickness of the layer of the liquid filling material is preferably within the range 0.01 to 0.35 cm, preferably 0.025 to 0.08 cm, while the metal sleeve has a thickness within the range of 0.03 to 0.3 cm preferably 0.75 mm (see column 2, line 62 and column 5, lines 33 to 42). The person skilled in the art will not consider filling such a narrow space between the sleeve and the core member of resilient rollers with a mixture containing a granular solid and exhibiting a pulpy consistency regardless of the teaching of Sulzer. The space is too small to be filled with such a mixture and the granular solid would most likely indent the thin sleeve of the resilient roller during operation of the roller.*

33. Examiner disagrees. As pointed out in the rejection of claim 23 in the non final office action, and pointed out above in the rejection of claim 1, the annular space 9 is intended to be filled by CLARKE with a uniformly distributed mixture of liquid and solid. Applicant makes an argument that the space as taught by CLARKE is too small to hold a solid and liquid mixture having a pulpy consistency. Examiner again disagrees. The term "pulpy" is vague and ill-defined. Applicant's own definition of pulpy is simply granular solid mixed in a liquid. Applicant does not give an adequate definition of the size of a grain of a granular solid. Granular is also vague and ill-defined. Examiner reasonably broadly accepts the definition of "granular" to apply to any solid particle. Thus, Applicant's argument that a granular solid will indent the thin sleeve of the resilient roller is spurious because CLARKE has not disclosed the size of the solid

particulates to cause this phenomenon. Examiner points out that the teaching of CLARKE to a solid that is uniformly distributed in a liquid is (by Applicant's own definition of pulpy) a pulp.

34. *The desired properties of the resilient rollers of Clarke et al., i.e. exerting a uniform pressure on the work-piece (see column 2 lines 1 to 16), will not be achieved when using a mixture as recited in claim 1.*

35. The mixture of claim 1 can be broadly interpreted to be a solution of liquid having solid particles within. Such a solution is within the purview of ordinary engineering technique given the teachings of CLARKE in view of SULZER. Such a solution is also capable of performing the intended use of exerting a uniform pressure on the work-piece.

36. *Furthermore, Clarke et al. does not consider reducing vibrations of the rollers by using a pertinent filling material.*

37. This is an intended use argument. The roller of CLARKE is capable of reducing vibrations by virtue of having mass.

38. *The Office Action acknowledges that Clarke et al. does not teach a mixture that exhibits a pulpy consistency. Sulzer describes, inter alia, rollers with a sleeve rotably mounted on the core element. Due to the high abrasion introduced by a mixture with a granular solid and a pulpy consistence, the person skilled in the art would be dissuaded from considering such a mixture as filling material.*

39. Applicant is once again narrowly interpreting the limitation of "pulpy" and is adding features such as abrasion. Not all pulpy mixtures need be abrasive.

40. *Furthermore, the Office Action relies on the limited teaching of Sulzer that the amount of liquid and its viscosity as well as its flow resistance are parameters for damping for the conclusion that a mixture containing a granular solid and exhibiting a pulpy consistency is obvious. The use of a mixture containing a granular solid is not disclosed by Sulzer or Clarke et al. There are an infinite number of combinations of materials, structures, sizes and consistencies that would influence the viscosity and flow resistance. Without either reference teaching or suggesting the use of granular solid particles to influence the dampening characteristics, there is no reasonable basis to support the position set forth in the Office Action that it would be mere experimentation to utilize granular solid particles in a mixture that exhibits a pulpy consistency. To the contrary, such a finding, without either reference suggesting the use of solid granular particles to influence the dampening characteristics, is improper hindsight reconstruction.*

41. Examiner has pointed out that it is CLARKE alone which teaches the pulpy liquid. As per Applicant's own definition, a pulp is a liquid having solid granules mixed into it. CLARKE's teaching in Column 6 lines 43-46 is to a pulp because it is inherent that the solid is particulate matter since the solid is taught to be uniformly dispersed in the liquid. Examiner has provided the teachings of SULZER to show that even if the definition of "pulpy" required a specific level of viscosity, or consistency, that such a "pulpy" consistency would have been obvious to a person having ordinary skill in the art attempting to limit the vibrations of a roll. SULZER specifically teaches that the vibration damping is directly related to the viscosity of the fluid in the roll. While it may be true

that there are infinite ways to change the viscosity of a fluid, Examiner asserts that a vastly common way of achieving such a viscosity change is by changing the temperature (as discussed by CLARKE) and by adding or removing particulates from solution (CLARKE teaches uniformly mixing solids with a filler liquid.). Thus, the ultimate goal of SULZER is not to create a pulpy consistency, but rather to dampen the vibrations of a roll by varying the consistency of the fluid in it.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB J. CIGNA whose telephone number is (571)

270-5262. The examiner can normally be reached on Monday - Friday 9:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726

/JACOB J CIGNA/
Examiner, Art Unit 3726
March 11, 2011